

REMARKS

Claims 2 and 3 have been cancelled, and claims 1 and 5 amended to more definitely set forth the invention and obviate the rejections. Support for the amendment of claims can be found in the original claims. This amendment is deemed not to add new matter. Claims 1 and 4-9 remain in the application.

Reconsideration is respectfully requested of the rejection of claims 1-4 and 8 under 35 U.S.C. 102(b), as being anticipated by Mastel (US 5,201,747).

The cited Mastel reference discloses an ophthalmological surgical instrument having a triple edge tip, wherein the front flat edge tip 22 is formed so as to be tilted and one end of the edge of the tip 22 forms a sharp point with one of the side edges 16 or 20. Importantly, the blade portion has a first edge 16 that lies substantially parallel to the long axis 18 of the blade (column 3, lines 6-7). The second edge 20 converges toward the first edge 16 at an angle of from about 10° to 30° (column 3, lines 7-8). For best results, Mastel teaches an angle of about 15°. As is clear from a reading of this construction, the surgical instrument taught by Mastel is used for forming a first incision on the first surface of the eyeball.

In contrast, the present invention provides an ophthalmologic knife for being guided into an incision ALREADY formed at an eyeball and for widening the width of the incision. The ophthalmologic knife of the present invention comprises a handle and a blade portion having a flat shape formed at the end portion of the handle. The blade portion has a front tip consisting of a guide portion, and cutting edges which are arranged on both sides of the blade portion in a narrowing manner toward the front tip (guide portion) of the blade portion. Importantly, these cutting edges are

NOT parallel to the long axis of the blade, as is required in the Mastel reference, as both of the cutting edges create a narrowing of the blade portion toward the tip (guide portion).

Furthermore, the front tip of the blade portion constitutes a guide portion arranged between the two cutting edges for guiding the blade portion into the incision formed at the eyeball. The guide portion has a wedge-shaped cross sectional slope at either a top surface or a bottom surface at a side cross section thereof in a longitudinal direction of the ophthalmologic knife, and an greater angle than that of the cutting edges. However, the "guide portion 4 serves to guide the blade portion 1 to the primary incision 32 without incising the cornea 31 or the sclera" (Specification, page 8, lines 26-27).

Thus, unlike the instrument disclosed in the Mastel reference, the angle of the edge of the guide portion 4, formed by slopes 5b and 6b, is limited to an angle of from 36-150°, and more preferably from 36-90°, so as not to form a sharp edge that may incise or damage the cornea, or a blunt edge that may catch on the incision or be difficult to guide into the incision. In addition, claim 5 provides that the inclination angles of the top and bottom surfaces of the guide portion differ from one another, a limitation believed not to be disclosed in the cited Mastel reference.

In view of the differences in construction of the ophthalmologic knife of the present invention versus the surgical instrument of the cited Mastel reference pointed out above, as well as the amendments made to claims 1 and 5 herein, it is believed that the cited Mastel reference fails to anticipate or render unpatentably obvious the knife now claimed herein. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of claims 1 and 9 under 35

U.S.C. 102(b) as being anticipated by Anis (US 5,352,233).

The cited Anis reference discloses a scalpel and technique for using same, in which the scalpel has a double-beveled thin blade with reflective and light-absorbing matted portions on its surface whereby glare from the reflective portions of the blade indicates the angle of the incision. As in Mastel above, the Anis scalpel is used to make a first incision by being provided with sharp tip(s). Specifically, the scalpel has a sharp point 20, as shown in Figures 2, 4 and 5.

Further, the edges 22 and 24 are formed with slanting planes 26, 28, 30 and 32. Importantly, the guide portion 20, 25 referred to by the Examiner is not a guide portion as disclosed and claimed in the present invention, but rather the tip 20 is formed by the meeting of 4 beveled surfaces and the edge 25 is formed by the meeting of 2 of the beveled surfaces (column 3, paragraph 6).

In contrast, as discussed above, the present invention provides an ophthalmologic knife for being guided into an incision ALREADY formed at an eyeball and for widening the width of the incision, wherein the guide portion has a wedge-shaped cross sectional slope at either a top surface or a bottom surface at a side cross section thereof in a longitudinal direction of the ophthalmological knife, NOT A TIP FOR CUTTING, as the “guide portion 4 serves to guide the blade portion 1 to the primary incision 32 without incising the cornea 31 or the sclera” (Specification, page 8, lines 26-27).

In view of the amendments to claim 1 made herein, as well as the distinguishing characteristics of the present invention pointed out above, it is believed that the Examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly

respectfully requested.

Reconsideration is respectfully requested of the rejection of claims 1 and 7 under 35 U.S.C. 102(b) as being anticipated by Freedman (US 4,185,634).

The cited Freedman reference discloses a surgical instrument, preferably for surgery requiring an incision in the skin followed by cutting of contracted muscle tendon attaching members such as planter aponeuroses. The blade 14 has on one side a sharp cutting edge 16 which extends linearly, and on the other side a dulled edge 18 which also extends linearly (column 3, lines 5-8). The blade 14 terminates in a tip 20 having formed thereat an incising edge 22 which is contiguous with the cutting edge 16 (column 3, lines 8-10). "The incising edge of the blade is used to make an incision in the skin just long enough to admit substantially the entire length of the blade portion" (column 2, lines 34-37).

In contrast, as discussed above, the knife of the present invention is to be used AFTER an incision has been made in the eyeball, thus the lack of an incising edge provided in the Freedman instrument. Further, the guide portion of the present invention has a wedge-shaped cross sectional slope at either a top surface or a bottom surface at a side cross section thereof in a longitudinal direction of the ophthalmological knife, AND a greater angle than that of the cutting edges. The guide portion of the present invention is not formed in an arcuate manner to intersect with a STRAIGHT dulled edge and a STRAIGHT sharp cutting edge, which are parallel to one another as shown in Figures 1 and 2 in the Freedman reference. Rather, the guide portion of the present invention forms a distinct plane BETWEEN two cutting edges, which narrow toward the tip of the blade portion, the guide portion having a wedge-shaped cross sectional slope at either a

top surface or a bottom surface at a side cross section thereof in a longitudinal direction of the ophthalmological knife, and an angle greater than that of the cutting edges. It is believed that such a teaching comes only from the present invention, and constitutes an important element or aspect thereof.

In view of the deficiencies of the Freedman reference pointed out above, as well as the amendments made to claim 1 herein, it is believed that the Examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the objection to claims 5 and 6 as being dependent upon a rejected base claim.

Claim 5 has been rewritten in independent form to include all of the limitation of base claims 1 and 4. It is believed that, in view of this amendment, the objection is now moot. Withdrawal of the objection is accordingly respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action and allowance thereof is accordingly respectfully requested. In the event there is any reason why the application cannot be allowed at the present time, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems.

Respectfully submitted,
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MARKED-UP VERSIONS OF AMENDED CLAIMS 1 AND 5:

1. (Amended) An ophthalmologic knife for being guided into an incision formed at an eyeball and for widening the width of the incision, the ophthalmologic knife comprising:

a handle having an end portion; and

a blade portion having a flat shape formed at [a] the end portion of the handle, [wherein the blade portion is formed with] said blade portion having a front tip and cutting edges arranged on both sides of said blade portion in a narrowing manner toward [a] the front tip of the blade portion, [and]

wherein the front tip of the blade portion is formed with a guide portion arranged between the two cutting edges for guiding the blade portion into the incision formed at the eyeball, the guide portion having a wedge-shaped cross sectional slope at either a top surface or a bottom surface at a side cross section thereof in a longitudinal direction of the ophthalmological knife, and the guide portion having a greater angle than that of the cutting edges.

5. (Amended) [The] An ophthalmologic knife [according to claim 4] for being guided into an incision formed at an eyeball and for widening the width of the incision, said knife comprising:

a handle having an end portion; and

a blade portion having a flat shape formed at the end portion of said handle, said blade portion having:

a front tip.

two cutting edges arranged on both sides of said blade portion in a narrowing manner toward the front tip of the blade portion, and
a guide portion disposed between the two cutting edges for guiding the blade portion into the incision formed at the eyeball, having a bottom surface, a top surface, a wedge-shaped cross section formed at a side cross section thereof in a longitudinal direction of the knife, cross sectional slopes formed at both the top surface and bottom surface thereof, and having a greater angle than that of the cutting edges, [wherein] the top surface [of the guide portion has] having an inclination angle different from that of the bottom surface.